Chapter 6

Introduction to E-Reading Context

Azza A Abubaker
Benghazi University, Libya & University of Huddersfield, UK

Joan Lu
University of Huddersfield, UK

ABSTRACT

The research aims to identify the problems and seek for possible solutions in e-reading context from a systematic discussion that is supported by more than 50 relevant references. The definitions of the problem have been presented. Numbers of research questions are asked prior to the methodologies. The importance and differences of qualitative and quantitative methods are addressed. Meanwhile, ethical issues and their benefits and risks are discussed and explained. Finally, the research framework is proposed as guidance for the near future research actions.

1. INTRODUCTION

Day after day, interest in the way of displaying data on screen has continued to increase, especially with the rise in the number of people who now use electronic texts for learning purposes. So, this requires more focus on factors that affect legibility on screen such as text format and user requirements. In addition, the numbers of previous attempts such as (Lee, Shieh, Jeng & Shen, 2008; Huang, Rau, & Liu, 2009) that cover all these factors affecting electronic reading are notably limited. One likely reason is that many researchers have concentrated their work on designing issues more than the analysis of the impact of these factors on display and reading electronic texts by children for learning. Another reason is that much of the research has focused on the effect of reading electronic text by examining the factors without grading or defining the relationship between these factors (Hartley & Burnhill, 1977; Dillon, Richardson & McKnight, 1990; Lee, et al, 2008; Huang et al. 2009).

In addition, most of these researchers have focused merely on multimedia features such as sounds, animation and dictionary option, with little focus on the format of electronic texts. Moreover, most of
the reading theories are merely concerned with paper texts, without examining if they are suitable also as e-texts.

Additionally, the reading topic has become more interesting for many researchers in different areas of research such as information science, computing science, and human science. Thus, there are three categories of digital reading studies:

1. Researchers focused on the usability of e-texts, e.g. comparing reading electronic to paper reading; measuring the legibility and comprehension of texts (Dillon, 1994; Noorhidawati & Forbes, 2008; Davis, Tierney & Chang, 2005); and examining user behaviours in digital environments.
2. Researchers presented a ‘new approach using technologies to support reading electronic that concentrates on new software and hardware, hypertext, and interface design such as (Anonymous, 2003; Godoy, Schiaffino & Amandi, 2004; Thissen, 2004; White, 2007).
3. Finally, researchers focused on the phenomenology of reading, as in studying human interaction with e-resources and reading process in both linear texts and hypertexts such as (Huang, 2005).

This research could not be included within any of these classifications to avoid falling into the same shortcomings of other research but aim to connect different aspects from different areas to provide a model that encompasses all the factors that affect legibility of e-texts according to the qualitative data and statistical analysis from several experiments.

However, the critical issues of how to increase usage of e-text are national concerns in developing countries. Although some Arabic countries have various national plans and policies to increase the use of e-text among children such as the ‘Report and Recommendations of the Fifteenth Meeting of the Group’ to develop a strategy of Arab telecommunications and information (2005) which aims to activate the role of communication technology, and to employ such technology in the Arab world. But unfortunately, the average reading of electronic text is still low; therefore, there are questions to be dealt with such as the following: (1) how to motivate more children to read e-text; (2) how to stimulate teachers to use online material in class; (3) how to motivate readers to modify their reading behaviour, from reading paper to reading e-text; (4) how to stimulate designers to display e-texts on screen in a way that encourages readers to read online. Part of these questions will be answered in this research thorough following different methods.

Thus, this research will focus on the text as the main tool for learning and addressing the effect of the reading process in the design online academic text by developing a model that explains the relationship between the variables. It will also show the average effect by using students from primary schools in Libya as subjects. In addition, the results of this study have the potential to impact the future of web-based testing; online publications, e-learning, and other electronic document formats.

2. PROBLEM DEFINITION

Text is still an important means of communicating with a learner and in many ways it is the most powerful. Furthermore, applying technology in education brings new issues related to visual display and how it affects the readability and legibility of e-text. In particular, when developing teaching material, it is very important to cover all these factors that may affect legibility of e-text, define the correlation between typographic variables, and see how it affects the reading process.